Monthly Status Briefing

October 2012

A Partnership for Safe Chemical Weapons Destruction

Project Background

- The Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP) will safely destroy 2,611 tons of mustard agent in mortar rounds and artillery projectiles stored at the U.S. Army Pueblo Chemical Depot (PCD).
- Neutralization followed by biotreatment is the technology selected by the Department of Defense to destroy the Pueblo chemical weapons stockpile.
- The Program Executive Officer, Assembled Chemical Weapons Alternatives (ACWA), headquartered at Aberdeen Proving Ground, Maryland, is responsible for managing all aspects of the safe and environmentally sound destruction of the chemical weapons stockpiles in Colorado and Kentucky.
- The Bechtel Pueblo Team (BPT) is a partnership of Bechtel National, Inc., URS, Parsons, and Battelle Memorial Institute. The BPT functions as the systems contractor selected to design, build, systemize, pilot test, operate, and close the PCAPP.

Bechtel Pueblo Team

Systems Contractor

- Project management
- Business services
- Safety and quality

BECHTEL

- Design/engineering
- Procurement/subcontracting
- Construction

Teaming Subcontractors

URS

- Systemization
- Pilot testing
- Operations
- Closure

PARSONS

- Process design
- Process equipment fabrication
- Support to systemization and operations

Battelle

- Environmental permitting and compliance
- Laboratory management
- Pilot testing

Staffing

- Bechtel Pueblo Team non-manual: **537**
  - Pueblo: 535 (135 local hires)
  - Other locations: 2
- Construction Workers: **373**
  - Bechtel direct-hire craft workers: 277
  - Subcontractor personnel: 96

Employment Opportunities

Hotline

(719)549-4003

Website

http://pueblo.bechtel.com

As of September 30, 2012,
PCAPP Project staff accomplished:

- 157 Safe Work Days
- 887,643 Safe Work Hours

Destruction Technology

Step 1

Removal of Energetics

Robotic equipment removes energetics (explosives) from the weapon. The energetics will be disposed of at a permitted facility offsite.

Step 2

Removal of Mustard Agent

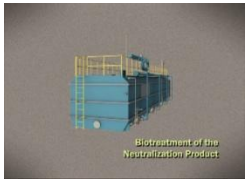
The inside of the weapon is remotely accessed and mustard agent is washed out with high-pressure water.

Step 3

Neutralization of Mustard Agent

The mustard agent is neutralized with caustic solution and hot water. The byproduct is called hydrolysate.

Step 4



Biotreatment

Microbes treat the hydrolysate, breaking it down into brine. The brine is separated with water being recycled back to the plant and salt cakes shipped for disposal at a permitted facility.

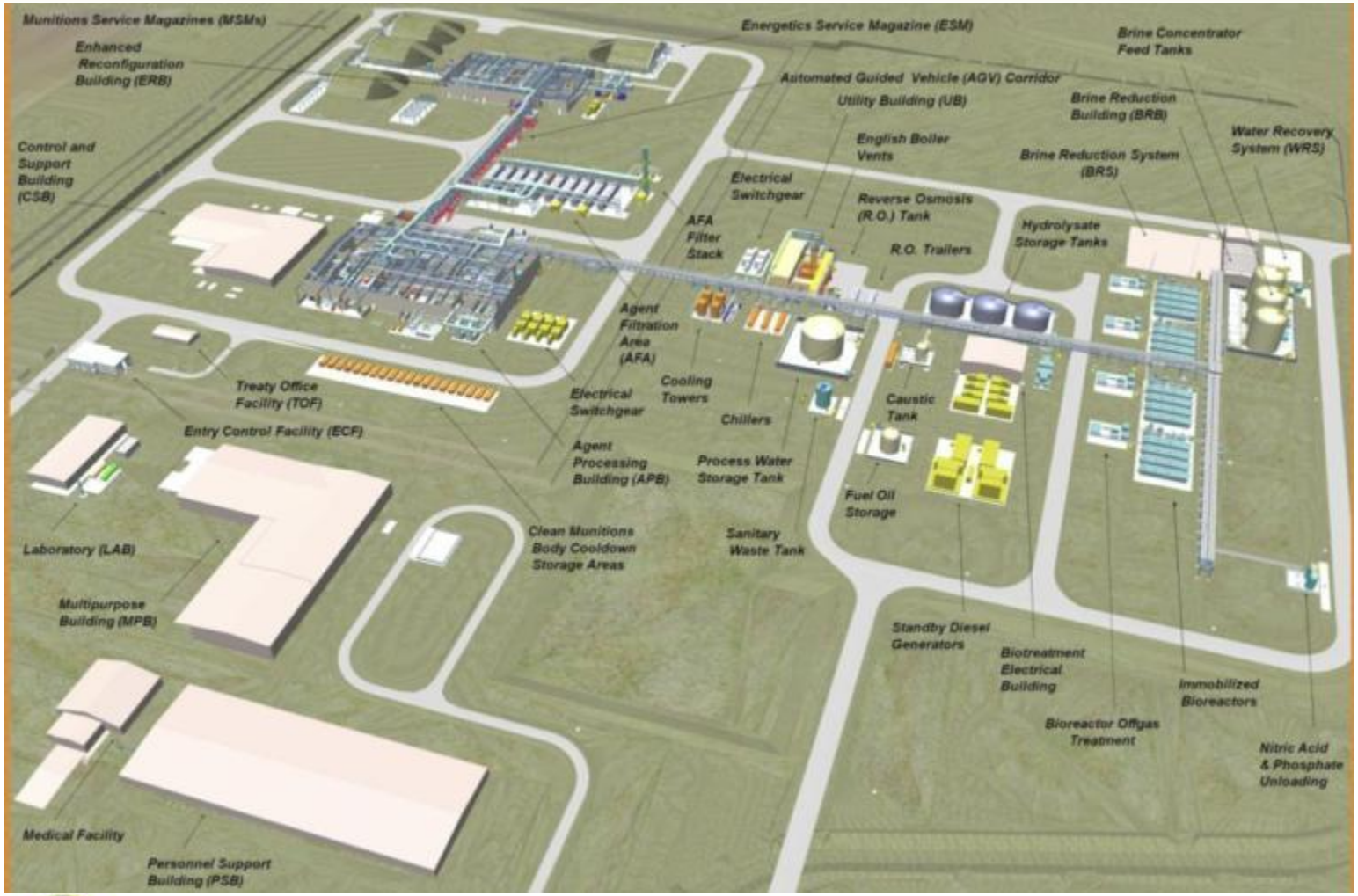
Step 5

Thermal Treatment and Disposal of Metal Parts

Metal Parts are heated to 1,000 degrees Fahrenheit for 15 minutes and can then be recycled.

Neutralization followed by biotreatment will be used to destroy the Colorado chemical weapons stockpile.

Pueblo Chemical Agent-Destruction Pilot Plant—Site Plan



PCAPP Site Overview

Northwestern Corner - Observation Point

1. Enhanced Reconfiguration Building
2. Automated Guided Vehicle Corridor
3. Agent Processing Building
4. Biotreatment Area
5. Agent Filtration Area
6. Munitions Service Magazine
7. Control and Support Building
8. Munitions Service Magazine corridor

Construction Status – In Progress

- **Enhanced Reconfiguration Building**–Continuing electrical punch list items; continued coatings placement in the Munitions Service Magazine (MSM) and MSM corridor areas.
- **Agent Processing Building**–Continuing electrical installations, piping and instrumentation installations as well as architectural installations.
- **Laboratory—**Continued HVAC and electrical installations.
- **Balance of Facilities–**Continue final grade, sidewalks in the yard area
- **Biotreatment Area–**Continuing coatings preparations for the Immobilized Cell Bioreactor pads; continue punch list items
- **Brine Reduction System–**Continuing electrical installations, including installations for Biotreatment Electrical Building; working punch list items.
- **Entry Control Facility**–Continuing electrical installations and architectural commodities.

Systemization

As the project transitions from construction to systemization, the following systems have been turned over to the start-up group to begin the systemization process:

- Instrument Air—IA Compressor "A," Dryer "A," Main Air Receiver and Yard Distribution Piping
- Hot Process Water—Agent Processing Building (APB) Hot Process Water Tank and Heating Coil.
- Agent Collection and Neutralization System—Hydrolysate Collection and Storage—Yard
- HVAC Hot Water—Pumps and related tanks, Heat Exchangers and Outside Rack Piping
- Breathing Air—A & B Compressor/Purifier Packages, Receiver and Chiller, Bottle Filling Station
- Enhanced Reconfiguration Building (ERB) Supply Air Handling Units/Control Room and Support Areas Ventilation System
- Steam Supply—Fuel Oil Piping, Natural Gas Piping, Amine Feed Skid, Boilers A & B" and Outside Rack Steam
- Steam and Condensate—APB/Biotreatment Area (BTA)/Brine Reduction System (BRS) Distribution
- Bulk Chemical Storage and Distribution—DAP, UREA and 25% caustic
- Projectile Handling and Projectile Disassembly—Projectile Mortar Disassembly systems and Related Equipment—Lines 1, 2, and 3

To learn more about Systemization, watch the video at http://www.peoacwa.army.mil/info/video/systemization_yt.html

Systemization (cont.)

- ERB 480V Substation
- Brine Reduction Belt Feed System
- Chilled Water—Chillers, Distribution to various HVAC units, recirculation units, autoclave and Off-Gas Treatment scrubber
- Decon Solution Storage and Distribution—APB
- Immobilized Cell Bioreactor (ICB) Feed, Biotreatment, ICB Blower and Off Gas Treatment—Modules 1/2/3/4
- Plant Air–BTA, APB and ERB Distribution
- Process Cooling Water—BRS Distribution
- Potable Water—ERB, APB and BRS
- ERB Electrical Room Ventilation System
- Munitions/Parts Monitoring-ERB
- Process Cooling Water—PCW Pumps, Tanks, Chemical Feed Skids, Cooling Towers, BRS Distribution
- Main Sanitary Waste—Lift Stations, Waste Tank and Pumps
- Non-Essential Power Panel-Entry Control Facility (ECF)
- Critical Power Panels—ERB
- Essential Power Panel—ECF
- Water Recovery—Brine Concentrator Feed Tanks "A", "B", and "C" and BC Feed Tanks Off-Gas Treatment
- Munitions Washout System-Instrument Air Distribution, Process Water Distribution, Hydraulic Power Line 1 & 2

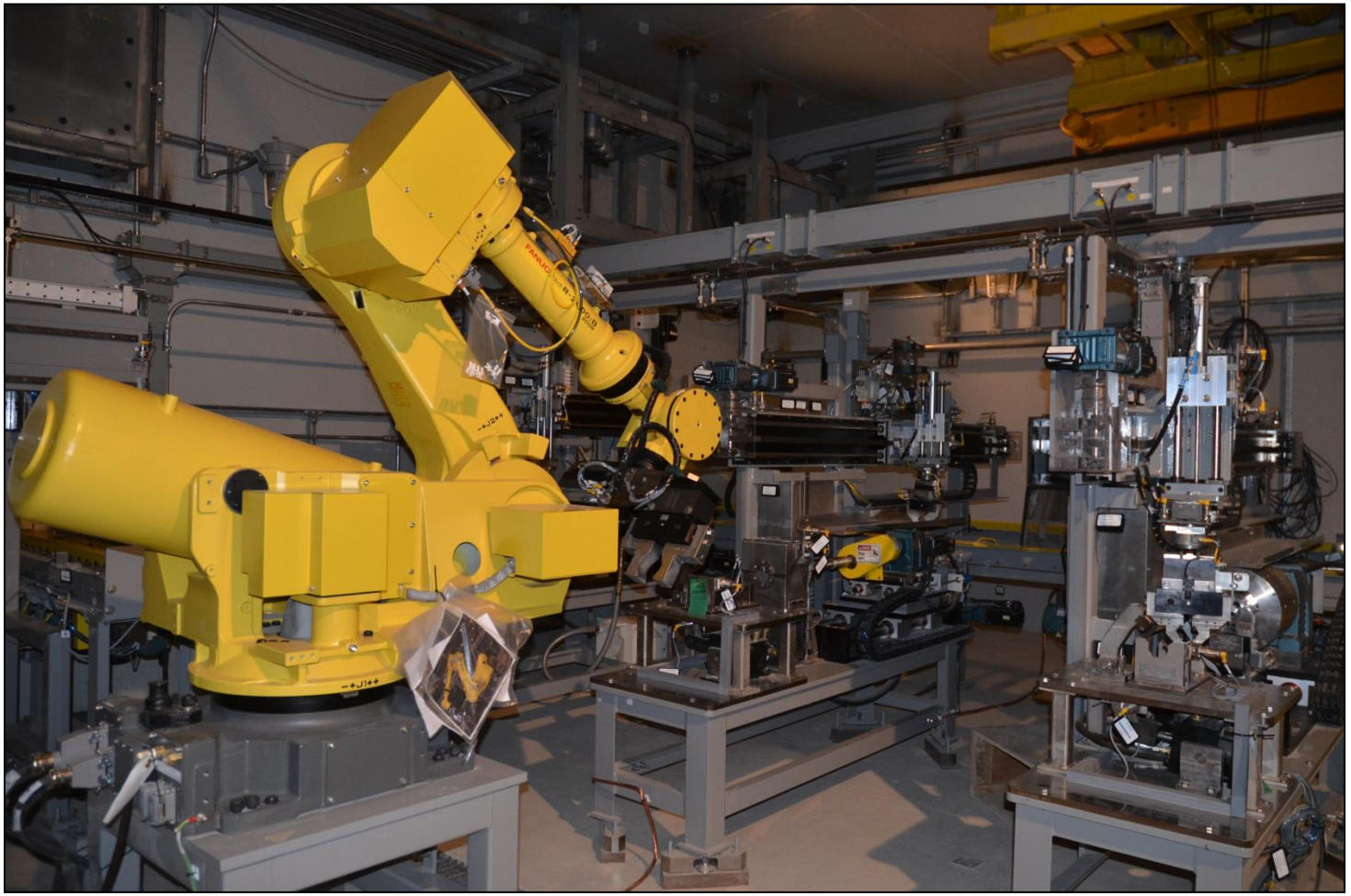
To learn more about Systemization, watch the video at http://www.peoacwa.army.mil/info/video/systemization_yt.html

*Newly added

Agent Processing Building

In the off-gas treatment system room, all process gasses enter through the large white pipe on the right. Large blowers will pull all of the gases through the system.

Enhanced Reconfiguration Building (ERB)



Three Projectile Mortar Disassembly systems are in place in three Explosion Containment Rooms inside the ERB.

Control and Support Building

A very complex HVAC system, which preheats, filters and absorbs contaminants, is located to the north of the Control and Support Building.

Biotreatment Area

Coating preparations have begun on the Immobilized Cell Bioreactors (ICB) pads. The ICB system breaks down the hydrolysate before making its way to the Brine Reduction System.

Contact Information

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